REMARKS

Claims 1-26 and 28-31 are currently pending. Claims 1, 7, 10, 26, and 28-31 were amended for clarification. The claim amendments are supported by Applicant's original disclosure, including Figure 2. It is respectfully submitted that no new matter has been added.

The Patent Office rejected claims 1-11, 13-26, and 28-31 under 35 U.S.C. 103(a) as being unpatentable over Nagasawa, U.S. Patent No. 6,707,908, in view of Yoon, U.S. Published Patent Application No. 2002/0052224.

Applicant has disclosed an exemplary embodiment as follows:

> The interrupt created at step 110 and at step 112 of FIG. 2, automatically introduces a replacement sequence of music into the musical audible alert. The replacement sequence is of limited duration (no more than a few seconds) and brings the musical alert to a non-abrupt conclusion. The MIDI data that produces the audible call alert is processed in real-time by the synthesizer and can therefore be modified easily in real-time.
> FIG. 3A illustrates how one musical audible alert 40 may be terminated. During the playing of the original musical audible alert 42, an incoming call is detected by the controller 28. The user answers the call at time T1 and the call termination process starts. The phone starts to play a replacement musical sequence 44 at time T2, which may be the same as T1 or later. The replacement musical sequence 44 and the audible alert 40 terminate at time T3. FIG. 3B illustrates how the original musical audible alert 42 would continue if the has not been answered. This is in comparison to prior mobile telephones in which the ringing tone stops abruptly at T1.
> The replacement musical sequence 44 may be a pre-determined sequence or a generated sequence.

Claim 1 recites as follows:

> An apparatus, comprising: a controller; and a memory, the controller, in conjunction with the memory, configured to cause the apparatus to perform actions as follows: cause an audio output section to terminate the musical audible alert while the musical audible alert is being played, in response to user input or after the musical audible alert has been playing for more than a predetermined threshold duration, by

playing a replacement musical sequence, where the replacement musical sequence is played as a conclusion of the musical audible alert.

Claim 20 recites as follows:

A mobile telephone, comprising: an audio output section configured to alert a user to an incoming call by playing a musical audible alert; a user input configured to cause an incoming call to be answered; and a controller, responsive to the user input, configured to control the audio output section to terminate the musical audible alert while the musical audible alert is being played, in response to the user input or after the musical audible alert has been playing for more than a predetermined threshold duration, by playing a replacement musical sequence, where the replacement musical sequence is played as a conclusion to the musical audible alert.

Claim 22 recites as follows:

A memory embodying a data file comprising a replacement musical sequence to be played to terminate an electronic device musical audible alert while the musical audible alert is being played, the replacement musical sequence being played in response to a user input or after the musical audible alert has been playing for more than a predetermined threshold duration, where the replacement musical sequence is played as a conclusion to the musical audible alert.

Claim 26 recites as follows:

A memory embodying a musical data file, configured to produce a musical audible alert in an electronic device, the musical data file comprising a plurality of conditional branching markers each of which is associated with a replacement musical sequence to be played to terminate the musical audible alert while it is being played, where the replacement musical sequence associated with a particular position of the musical audible alert is played in response to a user input or after the musical audible alert has been playing for more than a predetermined threshold duration, where the replacement musical sequence is played as a conclusion to the musical audible alert.

Claim 28 recites as follows:

An apparatus, comprising: a controller; and a memory configured to store a plurality of musical audible alerts each of which comprises a replacement musical sequence, the controller, in conjunction with the memory, configured to cause the apparatus to perform actions as follows: detect termination of a time out period that is started upon

detection of an initiation of an incoming call; detect answering of the incoming call; terminate a musical audible alert while the musical audible alert is being played at the apparatus when at least one termination of the time out period is detected and the incoming call is answered, the musical audible alert being downloadable from a server to the apparatus via a communication network; and play the replacement musical sequence as a conclusion of the musical audible alert.

Claim 29 recites as follows:

An apparatus, comprising: a controller; and a memory configured to store a plurality of musical data files for playing a mobile telephone musical alert, each of the stored musical data files comprising at least one conditional branching markers wherein each of the conditional branching markers is associated with a replacement musical sequence, the controller, in conjunction with the memory, configured to cause the apparatus to perform actions as follows: initiate a particular replacement musical sequence associated with a particular one of the conditional branching markers; play the particular replacement musical sequence as a conclusion of the musical audible alert; and terminate playing of the musical audible alert at the mobile telephone.

Claim 30 recites as follows:

A method, comprising: determining a call is incoming: playing by a controller an musical audible alert and setting a timer when the incoming call is determined, determining if there has been the call has been answered; if it is determined that the call has not been answered, then determining if the timer has timed out; if it is determined the timer has timed out or if it is determined that the call has been answered, playing a replacement musical sequence as a conclusion of the musical audible alert, thereby terminating the playing of the original musical audible alert.

Claim 31 recites as follows:

A method, comprising: detecting by a transceiver that a mobile telephone has an incoming call; starting a time out period upon detecting the incoming call; starting playing by a controller of a musical audible alert; detecting by the controller a user input generated for answering the call; detecting expiration of the time out period; and in response to detecting at least one of the user input and the expiration of the time out period, terminating by the controller the playing of the musical audible alert by playing a replacement musical sequence, where the replacement musical sequence is played as a conclusion of

the musical audible alert.

The Patent Office asserted that column 4, lines 14-55 and column 5, line 63, through column 6, line 23, of Nagasawa discloses an audible musical alert and a replacement musical sequence. These passages are reproduced below as follows:

> The control part 3 comprises a coding/decoding part 4 for coding/decoding a transmitting signal and a receiving signal, a sound data processing part 5 corresponding to the sound data processing means for the data process for reproducing the melody data as the sound, a display content control part 6 for controlling the display content on the display part 15, a melody memory selecting part 7 for selecting the melody memory in the memory part 12, a data reading/writing part 8 for reading and writing data with respect to the melody memory, and a medley editing and reproducing part 9 corresponding to the medley editing and reproducing means for the data process for editing a plurality of melody data for the reproduction as a medley. The control part 3 is realized according to the functional configuration to be operated by the MPU or DSP based on a control program stored in a memory medium such as a memory. The memory part 12, divided in a plurality of memory areas, comprises four built-in melody memories 13 (first memory device) including a melody A memory 13a, a melody B memory 13b, a melody C memory 13c, and a melody D memory 13d in this embodiment. Moreover, as an exterior type melody memory (second memory device), an external memory device 19 comprising a melody E memory 14 is provided. The external memory device 19 is to be connected detachably with the control part 3 via an interface 18. The external memory device 19 may comprise a plurality of memory areas.
> The conceptual configuration of the melody memory is shown in FIG. 2. For example, the title of each melody and the melody data are preliminarily stored and registered in each melody memory 13a to 13d, 14. In FIG. 2, data representing the editing condition for producing the medley is preset and registered instead of the data of the melody itself in the melody A medley, or the like shown in the uppermost row of each melody memory. As the editing condition, the number of pieces of music, the reproduction time for each piece of music (time of the introduction scan for successively reproducing the initial part of each piece of music), the fade-in/fade-out time for each piece of music, the titles of the pieces of music, and the order of the pieces of music in the medley reproduction are stored for writing and reading.
> The introduction scan time is the time for reproducing the individual melody data registered in the melody memories from the top of the piece of music. A inputted numerical value is handled as the seconds for the reproduction. According to the control program of the control

part 3, in the case a mark other than a number, for example, the * mark is inputted, all the melody data for one piece of music will be reproduced. In FIGS. 5A and 5B, T1 and T3 correspond to the introduction scan time.

Moreover, the fade-in/fade-out time denotes the time for controlling the volume at the time of changeover from a piece of music to another one such that the volume of the former one is gradually reduced and the volume of the latter one is gradually increased. That is, it is the time for linking the pieces of music. Also here an inputted numerical value is handled as the seconds. In the case the inputted numerical value is "0", the fade-in/fade-out operation is not executed. In FIGS. 5A and 5B, T2 and T4 correspond to the fade-in/fade-out time. Here, V1 and V2 denote the maximum volume of the melody.

According to the comparison between FIGS. 5A and 5B, it is easily understood that the medley reproduction content varies by changing the three items including the introduction scan time, the fade-in/fade-out time, and the number of pieces of music in the medley. The reproduction volume can be set or changed independently from the editing condition setting.

Nagasawa also discloses as follows in column 1, lines 51-55, as follows:

In light of the above-mentioned circumstances, an object of the invention is to provide a telephone terminal device capable of reproducing a plurality of receipt melodies preliminarily registered in an optional combination as a medley so as to improve the distinguishing ability for the receipt state of one's own device.

Nagasawa does not classify any musical piece differently from any other; a musical audible alert and replacement musical sequence are not disclosed together by Nagasawa. In Nagasawa, there are only musical pieces of the same kind. In Nagasawa, the pieces shown in Figures 5A and 5B correspond to a single medley produced to aid a listener in identifying if his/her device is receiving an incoming call. This is in contrast to Applicant's exemplary embodiments where a replacement musical sequence is provided to mitigate any annoyance that comes from abrupt termination of the audible music alert.

The Patent Office admitted that "Nagasawa fails to disclose where the replacement musical sequence is played as a conclusion to the musical audible alert."

The Patent Office then asserted that "Yoon discloses where the replacement musical sequence is played as a conclusion to the musical audible alert…" The teachings relied upon by the Patent Office are paragraphs 0021, 0007, and 0008. These passages are provided

immediately below as follows:

[0021] The controller 10 determines in step 100 whether a terminating ring tone editing key is input by the user. When the terminating ring tone editing key is input by the user, the controller 10 displays the Bell/Melody Selection menu, shown in FIG. 2A, on the display 16 in step 104. If, however, a key input by the user is not the terminating ring tone editing key, the controller 10 proceeds to step 102 and performs an operation corresponding to the key input. The controller 10 determines in step 106 whether the Bell/Melody Editing item is selected by the user. If the Bell/Melody Editing item is selected by the user, the controller 10 displays the Bell/Melody Editing menu, shown in FIG. 2C, on the display 16 in step 112. Otherwise, if the Bell/Melody Editing item is not selected by the user in step 106, **the controller 10 determines in step 108 whether the Melody Selection item is selected by the user. If the Melody Selection item is selected by the user, the controller 10 displays the Melody Selection menu, shown in FIG. 2B, on the display 16 in step 126. Otherwise, if the Melody Selection item is not selected by the user, i.e., if the Bell Selection item is selected by the user in step 108, the controller 10 proceeds to step 110.** After step 126, the controller 10 determines in step 128 whether a melody selection key is input by the user. If the melody selection key is input by the user, **the controller 10 sets the selected melody for a new terminating ring tone in step 130, and then ends the procedure.**
[0007] Therefore, there is a demand for a mobile wireless terminal which can easily set various terminating ring tones, so that the user can hear a new terminating ring tone at each incoming call.
[0008] It is, therefore, an object of the present invention to provide a terminating ring tone editing method for providing a user terminating ring tones that vary with each new incoming call, in a mobile wireless terminal having a memory in which a plurality of melodies are stored.

The terminating ring tone disclosed by Yoon in paragraphs 0015 and 0017-0024 is an ordinary ring tone. On page 4, lines 1-3, of the May 12, 2010 Office Action, the Patent Office asserted that "Figs. 3A-B, Page 2: [0021], a controller 10 determines at step 108 whether the melody selection item is selected by the user, and if "Yes" is selected, the selected melody will be used to terminate the ringtone." By disclosing **"the controller 10 sets the selected melody for a new terminating ring tone in step 130, and then ends the procedure"** in paragraph 0021, Yoon teaches that the selected melody become the ring tone (and not either an initial or concluding alert or replacement sequence).

Paragraphs 0005-0007 of Yoon indicate that there is but a single musical piece for any

given incoming call. These passages are reproduced immediately below as follows:

> [0005] A mobile wireless terminal such as a mobile telephone has a "terminating ring function" for informing the terminal user of an incoming voice call from other mobile wireless terminals or an incoming data call from various information providing servers. The terminating ring function includes a vibration mode and a melody mode that outputs a ring tone on terminating ring tone. In general, the term "terminating ring function" refers to the melody mode.
>
> [0006] A conventional mobile wireless terminal is so designed as to generate a single terminating ring tone designated by the user upon receipt of each incoming call. When using the same terminating ring tone for a long period of time, the user may get tired of the designated terminating ring tone. To solve this problem, the existing mobile wireless terminal stores a plurality of tones or melodies in its internal memory and can download the melodies from a melody providing server via the Internet to also be stored in the memory. However, if the user desires to hear a new terminating ring tone upon receipt of every incoming call, he or she must manually change the presently set terminating ring tone to a desired one of the terminating ring tones before receipt of a next incoming call.
>
> [0007] Therefore, there is a demand for a mobile wireless terminal which can easily set various terminating ring tones, so that the user can hear a new terminating ring tone at each incoming call.

The bell/ melody selection in Yoon concerns whether a bell or a melody is to be played for an incoming call, but not both.

Paragraph 0022 of Yoon discloses as follows:

> [0022] After step 112, the controller 10 determines in step 114 whether the Sequence Designation item is selected by the user. If the Sequence Designation item is selected by the user, the controller 10 displays the Sequence Designation menu, shown in FIG. 2D, on the display 16 in step 120. Otherwise, if the Sequence Designation item is not selected by the user, the controller 10 determines in step 116 whether the Sequence item is selected by the user. If not, the process returns to step 112. If the Sequence item is selected by the user, the controller 10 stores the melodies in the originally set sequence in step 118. The process then ends. At this point, upon each incoming call, the controller 10 will output a different melody according to the originally set sequence. After step 120, the controller 10 stores the sequence of the melodies to be output as the terminating ring tones according to the sequence of the melodies that the user designates using the Sequence Designation menu, in step 121. The controller 10 determines in step 122 whether a sequence designation end key is input by the user. If the

                    sequence designation end key is input by the user, the controller 10
                    stores the melodies in the memory 14 in the designated sequence in
                    step 124, and then ends the procedure, if not, the process returns to step
                    121.

The option of a melody sequence designation in Yoon means that the first incoming call will have a different melody played than the second incoming call and not that a musical audible alert will be followed by a replacement musical sequence. Yoon teaches a single melody is played for a given incoming call. Yoon does not teach that this single melody that is created may be added to a musical audible alert.

Neither Nagasawa nor Yoon discloses or suggests "**...an audio output section to terminate the musical audible alert while the musical audible alert is being played, in response to user input or after the musical audible alert has been playing for more than a predetermined threshold duration, by playing a replacement musical sequence, where the replacement musical sequence is played as a conclusion of the musical audible alert.**"

Since neither Nagasawa nor Yoon discloses or suggests this claimed subject matter, no purported combination of these two references would disclose or suggest this claimed subject matter.

Thus, claims 1-11, 13-26, and 28-31 are not made obvious by Nagasawa in view of Yoon.

The Patent Office rejected claim 12 under 35 U.S.C. 103(a) as being unpatentable over Nagasawa in view of Yoon and further in view of Mizuno, U.S. Published Patent Application No. 2002/0046899.

As to claim 12, Mizuno is cited as teaching "an electronic device wherein the replacement musical sequence is stored in a Musical Instrument Digital Interface track of a Musical Instrument Digital Interface file..."

The Patent Office asserted paragraphs 0002 and 0042 as applicable teachings from Mizuno. These passages are reproduced below as follows:

                    [0002] The present invention generally relates to a tone generator, a
                    performance   information   converting   method,   a   performance
                    information converting apparatus and a machine-readable medium of

programs for use in an apparatus capable of producing musical sounds such as an electronic musical instrument, a personal computer and amusement equipment. More particularly, **the invention relates to a tone generator, a performance information converting method, a performance information converting apparatus and a machine-readable medium suitable for use in emulating the sound of a ringing melody or the like to be sounded from a potable information terminal set.**

[0042] The corresponding piece of music (basic SMF) is read out from the basic SMF database 330 of the server computer 300 on the basis of the received music selection command. Then the bank select conversion part 350 writes into the SMF a program change including a bank select LSB corresponding to the model specified on the basis of the model designation command, and converts the SMF into an SMF format supported by the model specified. The SMF subjected to the bank select conversion is downloaded to the client computer 100 and reproduced in the player part 30 of the client computer 100 to supply corresponding MIDI data to the tone generator part 10. The tone generator part 10 generates tones on the basis of the MIDI data supplied from the player part 30. Since the MIDI data supplied here contain a program change having a bank select LSB corresponding to the type of the portable information terminal 400, **the tone generator part 10 selects a bank of timbres that have emulated synthetic tones of the portable information terminal 400. This makes it possible to listen to a sample of the music with a timbre that has emulated the sound of the portable information terminal 400.**

Mizuno does not disclose or suggest "**...an audio output section to terminate the musical audible alert while the musical audible alert is being played, in response to user input or after the musical audible alert has been playing for more than a predetermined threshold duration, by playing a replacement musical sequence, where the replacement musical sequence is played as a conclusion of the musical audible alert.**"

As none of Mizuno, Nagasawa, and Yoon teaches or suggests this claimed subject matter, no purported combination of these references would teach or suggest this claimed subject matter.

Thus, claim 12 is not made obvious by Nagasawa in view of Yoon and Mizuno.

The Patent Office is respectfully requested to reconsider and remove the rejections of claims 1-26 and 28-31 under 35 U.S.C. 103(a) based on Nagasawa and Yoon, whether or not

in combination with Mizuno, and to allow all of the pending claims 1-26 and 28-31 as now presented for examination. An early notification of the allowability of claims 1-26 and 28-31 is earnestly solicited. Should the Examiner have any questions, a call to the undersigned attorney would be appreciated.

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Respectfully submitted:

Walter J. Malinowski
Walter J. Malinowski
Reg. No.: 43,423

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Date

Customer No.: 29683

HARRINGTON & SMITH, Attorneys at Law, LLC
4 Research Drive
Shelton, CT 06484-6212

Telephone: (203)925-9400
Facsimile: (203)944-0245
email: wmalinowski@hspatent.com

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Name of Person Making Deposit

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